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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/774,209

02/06/2004

Danny R. Hessert

14395 (6365/90775)

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44986

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03/02/2006

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EXAMINER

HINZE, LEO T

ART UNIT

PAPER NUMBER

2854

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/774,209

Applicant(s)

HESSERT ET AL

Examiner

Leo T. Hinze

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the mailing address of each inventor. A mailing address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing address should include the ZIP Code designation. The mailing address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

It does not identify the city and either state or foreign country of residence of each inventor. The residence information may be provided on either an application data sheet or supplemental oath or declaration.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

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art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 2, 5-9 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bachmann, US 5,419,247 (Bachmann) in view of Ota et al., US 5,749,293 (Ota).

a. Regarding claims 1 and 9:

Bachmann teaches an ink supply system for use with a printer of the type in which ink is deposited in a receiving region on a plate (15, Fig. 3a) and ink is scraped from the plate leaving ink in the receiving region, comprising: an ink cup (50, Fig. 3a) having a hollow interior defining an ink reservoir and defining an outer edge, the outer edge having a scraping element (65, Fig. 3a) thereon for engaging the plate, the ink cup having an inlet and an outlet; a pump (56, Fig. 3a) having a suction side and a discharge side, the suction side being in flow communication with the ink cup outlet for drawing ink from the cup; a viscosity sensor ("well-known arrangement to monitor the viscosity and the temperature," col. 4, ll. 58-59); a reservoir (50, Fig. 3a) a flow conduit (58, Fig. 3a) extending between the reservoir and the ink cup for providing a flow of ink

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from the reservoir to the ink cup, wherein the pump draws ink from the cup creating a negative pressure within the cup and wherein the negative pressure within the cup draws ink from the reservoir to the ink cup through the flow conduit; a second flow conduit extending between the reservoir and the ink cup outlet for providing a flow of ink from the ink cup to the viscosity controller (57, Fig. 3a); means for creating a less than atmospheric pressure in the ink cup (56, Fig. 3a) disposed in the second flow conduit.

Bachmann does not teach a viscosity controller in flow communication with the pump discharge and configured to receive ink from the pump.

Ota teaches an ink delivery system including a reservoir (9, Fig. 1), a pump (10, Fig. 1) filter (11, Fig. 1), a viscosity/temperature controller (12, Fig. 1), and an ink supply (P1, Fig. 1).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Bachmann to include a viscosity controller downstream from the pump and upstream from the ink supply, because a person having ordinary skill in the art would recognize that a viscosity controller would increase the functionality of the Bachmann machine by allowing automatic adjustments of ink viscosity based on the output from the well-known viscosity sensor of Bachmann.

b. Regarding claims 2 and 14:

The combination of Bachmann and Ota teaches all that is claimed as discussed in the rejection of claims 1 and 9 above.

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The combination of Bachmann and Ota does not teach wherein the ink cup is at an elevation and wherein the viscosity controller is at an elevation that is lower than the elevation of the ink cup.

Bachmann also teaches that it is desirable to prevent an overpressure condition in the ink cup (9, Fig. 1; col. 2, ll. 56-58).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Bachmann such that the ink reservoir and pump were below the ink cup, because a person having ordinary skill in the art would recognize, by taking advantage of well-known hydraulic principles, that placing the reservoir of ink below the ink cup would reduce the change of over pressuring the ink cup due to a static head difference in pressures between the reservoir and the ink cup.

c. Regarding claims 5, 6 and 12, the combination of Bachmann and Ota teaches all that is claimed as discussed in the rejection of claims 1 and 9 above. Bachmann also teaches wherein the first flow conduit (58, Fig. 3a) is a passive flow conduit.

d. Regarding claims 7 and 13, the combination of Bachmann and Ota teaches all that is claimed as discussed in the rejection of claims 1 and 9 above. Bachmann also teaches wherein the scraping element (65, Fig. 3a) is a doctor blade.

e. Regarding claims 8 and 11, the combination of Bachmann and Ota teaches all that is claimed as discussed in the rejection of claims 1 and 9 above. Bachmann also teaches a viscosity measuring device (“well-known arrangement to monitor the viscosity and the temperature,” col. 4, ll. 58-59).

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f. Regarding claim 15, the combination of Bachmann and Ota teaches all that is claimed as discussed in the rejection of claim 9 above. Bachmann also teaches wherein the means for creating a less than atmospheric pressure is a pump (56, Fig. 3a) disposed between the ink cup and the viscosity controller and wherein the pump take suction from the ink cup.

5. Claims 3, 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bachmann in view of Ota as applied to claims 1 and 9 above, and further in view of Gaenzle, US 4,792,292 (Gaenzle).

The combination of Bachmann and Ota teaches all that is claimed as discussed in the rejections of claims 1 and 9 above. Ota is silent as to the specific workings of the viscosity controller 12 (Fig. 1).

The combination of Bachmann and Ota does not teach:

Claim 3: an ink thinner supply, the ink thinner supply being in flow communication with the viscosity controller;

Claim 4: wherein when the viscosity controller senses a higher than desired viscosity of the ink, a quantity of the ink thinner is provided to the viscosity controller to mix with the ink reduce the ink viscosity;

Claim 10: an ink thinner supply in flow communication with the viscosity controller, and wherein when the viscosity controller senses a higher than desired viscosity of the ink, a quantity of ink thinner is provided to the viscosity controller to mix with the ink to thin the ink.

Gaenzle teaches an ink pump system (10, Fig. 1) including a viscosity controller with an ink thinner supply ("solvent reservoir," col. 1, l. 44) in flow communication with the viscosity

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controller, and wherein when the viscosity controller senses a higher than desired viscosity of the ink, a quantity of ink thinner is provided to the viscosity controller to mix with the ink to thin the ink ("transferring solvent from the solvent reservoir to the ink reservoir as required to maintain the ink's viscosity," col. 1, ll. 46-47). Gaenzle teaches that it is desirable to maintain the ink used in a system in a substantially uniform viscosity (col. 1, ll. 13-15).

Regarding claims 3, 4 and 10, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to further modify Bachmann to include an ink thinner supply in flow communication with the viscosity controller, and wherein when the viscosity controller senses a higher than desired viscosity of the ink, a quantity of ink thinner is provided to the viscosity controller to mix with the ink to thin the ink, because Gaenzle teaches that this system effectively maintains the viscosity of the ink and that it is desirable to maintain the ink used in a system in a substantially uniform viscosity.

Conclusion

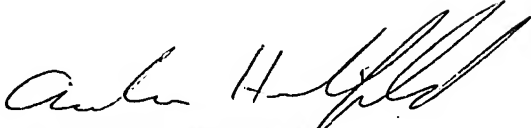
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is (571) 272-2167. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leo T. Hinze
Patent Examiner
AU 2854
17 February 2006



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